UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _16 December 2008_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1 and 3-61_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1 and 3-61_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some *   c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _9/25/08_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

This action is responsive to the amendment filed on December 16, 2008. Claims

1 and 3-61 are pending.

Response to Amendment

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claim 55 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Claim 55 teaches a messaging system, a

client application, and a server application, which can be implemented on software; and

the specification does not point to a hardware or other statutory embodiment for the

system. The idea that the system can be embodied fully in software makes the system

software per se and non-statutory.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 3-10, 15, and 17-61 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Gleeson et al., U.S. Patent No. 5,446,736, in view of Dunlop et al.,

U.S. Patent No. 6,721,872, further in view of Schuster et al., U.S. Patent No. 6,785,261.

Gleeson teaches the invention substantially as claimed including an apparatus

and methods for connecting nodes to wireless networks using standard network

protocols (see abstract).

As to claims 1, 48, and 55, Gleeson teaches a messaging system, messaging

method, comprising:

a client device to store a client application to be executed by said client device

(col. 6, lines 4-41, fig. 1, Gleeson discloses PCs communicating with the network

switch);

a server to store a server application to be executed by said server (col. 6, lines

4-41, fig. 1, Gleeson discloses an enterprise network server);

a plurality of networks to communicate messages between said client device and

said server; and to support one or more wireless network protocols (col. 3, lines 30-36,

col. 6, lines 4-41, fig. 1, Gleeson discloses wireless WANs used for the PCs to

communicate with the server using any one of a number of conventional protocols);

a communicator to communicate a message between said client application and

said server application through said protocol gateway with said underlying wireless

network protocol (col. 3, lines 30-36, col. 6, lines 4-41).

Gleeson fails to teach the limitation further including a protocol gateway

adaptively arranged between at least two of said plurality of said networks.

However, Dunlop teaches an interface between a host device and a

communication or information network (see abstract). Dunlop teaches the use of a

reconfigurable network interface architecture including a device to support/encapsulate

multiple network operating protocols and an OSI protocol stack (col. 3, lines 14-34, col.

4, lines 5-15).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Gleeson in view of Dunlop to use a protocol gateway adaptively

arranged between at least two of said plurality of said networks. One would be

motivated to do so because it is efficient for communication to have a device that

supports different protocols (col. 2, lines 13-19).

Gleeson also fails to teach the limitation further including segmenting a message

communicated into multiple segments, and encapsulate said segments with a segment

header.

However, Schuster teaches a method and apparatus for facilitating correction of

data loss in a data transmission system (see abstract). Schuster teaches a message

divided into data packets and those packets including a packet header (col. 1 line 63 –

col. 2, line 7).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Gleeson in view of Schuster to use segment a message

communicated into multiple segments, and encapsulate said segments with a segment

header. One would be motivated to do so because it minimizes transmission latency.

Regarding claims 3, 50, and 57, Gleeson teaches the messaging system and

method according to claims 1, 48, and 55, wherein said underlying wireless network

protocol is comprised of a protocol stack that comprises:

an application layer mapped to layer 7 of said OSI model;

a network layer mapped to layer 3 of said OSI model;

a data link layer mapped to layer 2 of said OSI model; and

a physical layer mapped to layer 1 of said OSI model (col. 6, lines 57-61, fig. 2, 5,

6, Gleeson discloses a protocol stack of layers used).

Regarding claims 4, 41, 51, and 58, Gleeson teaches the messaging system and

method according to claims 3, 23, 50, and 57, wherein:

said application layer comprises an interface between a client application and a

simple network transport layer (SNTL); and

said client application is adapted to send and receive messages across said

plurality of wireless networks without having any information of a communication

implementation (col. 7, 8; fig. 5, 6).

Regarding claims 5, 52, and 59, Gleeson teaches the messaging system and method according to claims 4, 41, and 58, wherein:

said client application is selected from a group consisting of one or more e-mail applications, one or more file transfer applications, and a plurality of end user applications (col. 11, line 43 - col. 12, line 55, Gleeson discloses client software).

Regarding claims 6, 53, and 60, Gleeson teaches the messaging system and method according to claims 4, 50, and 57, wherein:

said network layer comprises means for providing network protocol layer functionality and hiding the details of said functionality from a simple network transport layer (SNTL) (fig. 5, 6).

Regarding claims 7, 54, and 61, Gleeson teaches the messaging system and method according to claims 6, 53, and 60, wherein:

said network layer comprises an Internet Protocol (IP) (fig. 5, 6; col. 11, lines 44-58).

Regarding claim 8, Gleeson teaches the messaging system according to claim 3, wherein:

said data link layer and said physical layer are together adapted to comply with a public switch telephone network protocol (col. 10, lines 20-25, Gleeson discloses the use of various networks).

Regarding claim 9, Gleeson teaches the messaging system according to claim 3, wherein:

said data link layer and said physical layer are together adapted to comply with a cellular digital packet data protocol (col. 10, lines 20-25).

Regarding claim 10, Gleeson teaches the messaging system according to claim 3, wherein:

said data link layer and said physical layer are together adapted to comply with a Mobitex protocol (col. 10, lines 20-25).

Regarding claim 15, Gleeson teaches the messaging system according to claim 3, wherein:

said data link layer and said physical layer are adapted to comply with said selected wireless network protocol (col. 10, lines 20-25).

Regarding claim 17, Gleeson teaches the messaging system according to claim 4, wherein:

said SNTL includes a connectionless UDP-like transport protocol having substantially all features and advantages of TCP (fig. 5, 6).

Regarding claim 18, Gleeson teaches the messaging system according to claim

17, wherein:

said features are selected from a group comprising message segmentation,

message segment reassembly, message retries, and message duplication (fig. 12A –

fig. 15).

Regarding claim 19, Gleeson teaches the messaging system according to claim

17, wherein:

said SNTL includes a transport header having a preselected width (fig. 12A – fig.

15).

Regarding claim 20, Gleeson teaches the messaging system according to claim

19, wherein:

said preselected width comprises between four to six bytes (fig. 12A – fig. 15).

Regarding claim 21, Gleeson teaches the messaging system according to claim

19, further comprising:

a single segment message header (fig. 12A – fig. 15).

Regarding claim 22, Gleeson teaches the messaging system according to claim

19, further comprising:

a multiple segment message header (fig. 12A – fig. 15).

Regarding claim 23, Gleeson teaches the messaging system according to claim

19, wherein said transport header further comprises:

a first field adapted to indicate a version number of a segment header (pg. 47,

Gleeson discloses a ver field);

a second field adapted to indicate a message identification value, adapted to

discard segment/message duplications and to match acknowledgments with messages;

a third field adapted to indicate protocol information;

a fourth field adapted to indicate a total number of bytes contained in a message

segment to be sent including said segment header; and

a fifth field adapted to indicate a number of each said message segment (fig. 12A

– fig. 15).

Regarding claim 24, Gleeson teaches the messaging system according to claim

23, wherein:

said first field comprises two bits (fig. 12A – fig. 15).

Regarding claim 25, Gleeson teaches the messaging system according to claim

23, wherein:

said first field comprises bit 0 and bit 1 of a first word in said segment header (fig.

12A – fig. 15).

Regarding claim 26, Gleeson teaches the messaging system according to claim 23, wherein:

said first field comprises a value of from 0 to 3 (fig. 12A – fig. 15).

Regarding claim 27, Gleeson teaches the messaging system according to claim 23, wherein:

said second field comprises thirteen bits (fig. 12A – fig. 15).

Regarding claim 28, Gleeson teaches the messaging system according to claim 23, wherein:

said second field comprises bits 2 through 14 of a first word in said segment header (fig. 12A – fig. 15).

Regarding claim 29, Gleeson teaches the messaging system according to claim 23, wherein:

said second field comprises a value of from 0 to 8,192 (fig. 12A – fig. 15).

Regarding claim 30, Gleeson teaches the messaging system according to claim 23, wherein:

said third field comprises five bits (fig. 12A – fig. 15).

Regarding claim 31, Gleeson teaches the messaging system according to claim 23, wherein:

said third field comprises bits 15 through 19 of a first word in said segment header (fig. 12A – fig. 15).

Regarding claim 32, Gleeson teaches the messaging system according to claim 23, wherein:

bit 19 of said third field comprises a value indicative of message segmentation (fig. 12A – fig. 15).

Regarding claim 33, Gleeson teaches the messaging system according to claim 32, wherein:

bit 19 comprises a value of 0 when said message is not segmented (fig. 12A – fig. 15).

Regarding claim 34, Gleeson teaches the messaging system according to claim 32, wherein:

bit 19 comprises a value of 1 when said message is segmented (fig. 12A – fig. 15).

Regarding claim 35, Gleeson teaches the messaging system according to claim 23, wherein:

bit 16 of said third field comprises a value indicative of a message type (fig. 12A – fig. 15).

Regarding claim 36, Gleeson teaches the messaging system according to claim 35, wherein:

bit 16 comprises a value of 0 when said message includes a positive acknowledgment (fig. 12A – fig. 15).

Regarding claim 37, Gleeson teaches the messaging system according to claim 35, wherein:

bit 16 comprises a value of 1 when said message includes a negative acknowledgment (fig. 12A – fig. 15).

Regarding claim 38, Gleeson teaches the messaging system according to claim 23, wherein:

bit 15 of said third field comprises a message indicator (fig. 12A – fig. 15).

Regarding claim 39, Gleeson teaches the messaging system according to claim 38, wherein:

bit 15 comprises a value of 0 when said message is an application message (fig. 12A – fig. 15).

Regarding claim 40, Gleeson teaches the messaging system according to claim 38, wherein:

bit 15 comprises a value of 1 when said message is a system message (fig. 12A – fig. 15).

Regarding claim 41, Gleeson teaches the messaging system according to claim 23, wherein:

said fourth field comprises twelve bits (fig. 12A – fig. 15).

Regarding claim 42, Gleeson teaches the messaging system according to claim 41, wherein:

said fourth field comprises bits 20 through 31 of a second word in said segment header (fig. 12A – fig. 15).

Regarding claim 43, Gleeson teaches the messaging system according to claim 42, wherein:

said fourth field comprises a value of from 4 to 4,096 (fig. 12A – fig. 15).

Regarding claim 44, Gleeson teaches the messaging system according to claim 23, wherein:

said fifth field comprises eight bits (fig. 12A – fig. 15).

Regarding claim 45, Gleeson teaches the messaging system according to claim 44, wherein:

said fifth field comprises bits 0 through 7 of a third word in said segment header (fig. 12A – fig. 15).

Regarding claim 46, Gleeson teaches the messaging system according to claim 44, wherein:

said fifth field comprises a value of from 2 to 255 (fig. 12A – fig. 15).

Regarding claim 47, Gleeson teaches the messaging system according to claim 23, wherein:

said fifth field is adapted to re-order a plurality of message segments into a single complete message (fig. 12A – fig. 15).

Regarding claims 49, and 56, Gleeson teaches the messaging system and method according to claims 48, and 55, wherein:

a simple network transport layer (SNTL) that maps to layer 4 of said OSI model (fig. 5, 6).

4.   Claims 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gleeson, Dunlop, and Schuster further in view of Meyer et al., U.S. Patent No. 6,778,099.

Gleeson teaches the invention substantially as claimed including an apparatus

and methods for connecting nodes to wireless networks using standard network

protocols. Dunlop teaches the invention substantially as claimed including an interface

between a host device and a communication or information network. Schuster teaches

the invention substantially as claimed including a method and apparatus for facilitating

correction of data loss in a data transmission system.

As to claim 11, Gleeson, Dunlop, and Schuster teach the method of claim 3.

Gleeson, Dunlop, and Schuster fail to teach the limitation further including

wherein said data link layer and said physical layer are together adapted to comply with

a RIM protocol.

However, Meyer teaches automatic equipment and systems for remote reading

of utility meters via a wireless area network communications module (see abstract).

Meyer teaches the use of a RIM protocol (col. 6, lines 17-20).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Gleeson, Dunlop, and Schuster in view of Meyer to use a RIM

protocol. One would be motivated to do so because it allows for the use of more

protocols to transfer data.

As to claim 12, Gleeson, Dunlop, and Schuster teach the method of claim 3.

Gleeson, Dunlop, and Schuster fail to teach the limitation further including wherein said data link layer and said physical layer are together adapted to comply with an ARDIS protocol.

However, Meyer teaches the use of an ARDIS protocol (col. 6, lines 1-5).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gleeson, Dunlop, and Schuster in view of Meyer to use an ARDIS protocol.

As to claim 13, Gleeson, Dunlop, and Schuster teach the method of claim 3.

Gleeson, Dunlop, and Schuster fail to teach the limitation further including wherein said data link layer and said physical layer are adapted to comply with a GPRS protocol.

However, Meyer teaches the use of other packet wireless data networks and packets transmitted and received over a radio modem (col. 6, lines 1-5, col. 7, lines 21-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gleeson, Dunlop, and Schuster in view of Meyer to use a GPRS protocol.

As to claim 14, Gleeson, Dunlop, and Schuster teach the method of claim 3.

Gleeson, Dunlop, and Schuster fail to teach the limitation further including

wherein said data link layer and said physical layer are adapted to comply with a GSM

protocol.

However, Meyer teaches the use of a GSM protocol (col. 6, lines 1-5).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Gleeson, Dunlop, and Schuster in view of Meyer to use a GSM

protocol.

As to claim 16, Gleeson, Dunlop, and Schuster teach the method of claim 3.

Gleeson, Dunlop, and Schuster fail to teach the limitation further including an

ARDIS protocol, a RIM protocol, a GPRS protocol, and a GSM protocol.

However, Meyer teaches the use of an ARDIS protocol, a RIM protocol, a GPRS

protocol, and a GSM protocol (col. 6, lines 1-5, 17-20; col. 7, lines 21-26).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Gleeson, Dunlop, and Schuster in view of Meyer to use an ARDIS

protocol, a RIM protocol, a GPRS protocol, and a GSM protocol.

Response to Arguments

5.   Applicant's arguments filed December 16, 2008 have been fully considered but

they are not persuasive.

6.   In response to applicant's arguments against the references individually, one

cannot show nonobviousness by attacking references individually where the rejections

are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir.

1986). In addition, the protocol gateway and underlying wireless network protocol are

both found in Gleeson, not in Schuster.

Regarding the argument to claim 1, the applicant argues that the motivation, that

message segmentation would minimize transmission latency, would have the opposite

result of what the examiner relies on. The examiner respectfully disagrees as message

segmentation allows for packets, which are smaller than the message as a whole, to be

sent; which would reduce transfer errors in comparison to sending the whole message

at once, thus transmission latency would be minimized overall with this technique.

The 101 rejection regarding claim 1 has been removed. Claim 55 is still rejected

under 101 as there is no client device or server as in claim 1, thus allowing the claim to

be fully embodied in software.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

U.S. Pat. No. 6,304,564 to Monin et al.

U.S. Pat. No. 6,718,384 to Linzy

U.S. Pat. No. 6,628,965 to LaRosa et al.

U.S. Pat. No. 6,721,779 to Maffeis

U.S. Pat. No. 6,874,018 to Wu

U.S. Pat. No. 5,970,059 to Ahopelto et al.

U.S. Pat. No. 5,673,322 to Pepe et al.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to AVI GOLD whose telephone number is (571)272-4002.

The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Avi Gold

Patent Examiner

Art Unit 2157

AMG

/Ario Etienne/
Supervisory Patent Examiner, Art Unit 2157